Performance Plan
2001/2002-03-04

BRITISH COLUMBIA

Ministry of Health

and

Ministry Responsible for Seniors

Date: April 2001

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SECTION 1

This Performance Plan is a compilation of the major program objectives of Ministry of Health program areas. It is not a comprehensive list of all the program objectives to be undertaken during the next year. Instead, it represents issues that are either fundamental to the day-to-day operations of the Ministry or that will take the Ministry towards its vision of the future of health care in British Columbia.

VISION

The British Columbia government's overall vision for health is to ensure a healthy population living in a healthy environment.

The vision encompasses two characteristics:

- The health of all British Columbians will be actively promoted and protected through healthy social, economic and physical environments;
- British Columbians who are sick get the right services, in the right place, at the right time.

MISSION

The mission of the Ministry of Health is to support British Columbians in their efforts to maintain and improve their health. The Ministry provides strategic direction and leadership of the health care system on behalf of the provincial government. Through a broad range of programs, services and public funding, the Ministry is responsible for ensuring the maintenance of high quality, accessible, affordable health care for British Columbians.

VALUES

Health service planning, management and delivery is based on principles, which are linked to the elements of our mission:

A Health System for British Columbians

- Health services should be developed, delivered and evaluated in collaboration with consumers and health service practitioners and should respect the diversity of British Columbians.

- Health Services should focus on decreasing the disparity in health status among population groups.

Reasonable Access

- All British Columbians should have access to the health services they require.

High Quality

- Health services should provide the right service, at the right time, in the right place, by the right provider.
- Health services should be managed and delivered to provide the best possible health outcomes for British Columbians.
- Health services should focus on minimizing risks to the health and safety of British Columbians.

Affordable and Sustainable Costs

- Health services should be managed and delivered at the lowest cost consistent with quality services.

ENVIRIONMENTAL SCAN

The Ministry performs a regular environmental scan, both to assess the external factors that are likely to have significant impact on the health care sector, and the extent to which the Ministry and the health care sector are equipped to deal with these factors. Because of the range and complexity of the health care environment, the scan is several pages in length and is not contained in the body of this Plan. The most recent scan is attached as Appendix A.

SECTION 2

PROGRAM OBJECTIVES

In *Strategic Directions for British Columbia's Health Services System*,[1] the Ministry established nine strategic goals with supporting objectives that are listed in detail in Appendix B. All Program Objectives are linked to one or more Strategic Goals and the related Objectives.

The Ministry is organized as follows[2]:

Regional Programs
Strategic Programs
Medical Services Plan/Pharmacare
Corporate Programs/Chief Information Officer
Communications & Issues Management
Labour Relations & Negotiation Support
Innovation Office

Two further entities are covered by this Performance Plan: the Medical Services Commission and the Emergency Health Services Commission. The mandates of these bodies are as follows:

Medical Services Commission

To facilitate reasonable access, throughout British Columbia, to quality medical care, health care and diagnostic facilities for the residents of the province under the Medical Services Plan.

Emergency Health Services Commission

To provide reasonable access, throughout British Columbia, to high quality emergency health care and transportation for all residents of the province.

These mandates are operationalized through the Medical Services Plan and the BC Ambulance Service, respectively. Performance measures covering these operational bodies are also contained within this Performance Plan.

PERFORMANCE MEASURES

The Performance Measures in the Performance Plan

The 29 performance measures contained in the 2001/02-03-04 Ministry Performance Plan are grouped according to the eight major Program/Budget areas in the Ministry. Section 2 of the Plan includes a summary of the key program area objectives and a detailed listing of their respective performance measures and three-year performance targets. Some of the measures have been included to show performance of Ministry programs as distinct from the broad health

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[1] The *Strategic Directions* report is available at: http://www.gov.bc.ca/hlth/

[2] Organization effective March 2001

sector, while others report on sector-wide results. Because of the difficulty of attributing changes in health sector outcomes to specific program activities, the performance measures contained in this document are still mostly related to output measures. Further, measures contained in this Plan have been selected in part based upon the ability of the health care system to provide reliable data within the time frame established by the *Budget Transparency and Accountability Act*. The Ministry is, however, moving towards outcome measures and expects to incorporate these to a greater extent with each successive Plan.

Comparison to Other Performance Measurement Initiatives

The measures contained in this Performance Plan represent only a subset of the indicators used annually by Ministry and health care sector partners to monitor the effectiveness of the sector and to manage the system for performance. Each of these major performance indicator initiatives is described briefly below, and a detailed comparison of the performance measures derived in each approach is contained in Appendix C.

The BC Government Strategic Plan has identified performance measures for the health care sector in the following areas:

Keeping people healthy
- infant mortality
- life expectancy
- early childhood development

Providing quality health care
- accessibility
- recuperation
- resources

Twenty-four performance targets have been established for these measures.

A further set of 33 performance indicators has been prepared to specifically reflect the accountabilities of the Health Authorities in British Columbia. In addition, the Ministry is participating in an inter-provincial exercise to identify key performance indicators on a nationally comparative basis. These are expected to broadly cover health status (e.g., infant mortality), health outcomes (e.g., improved quality of life) and quality of service measures.

A set of over 40 performance measures has also been traditionally included in the Ministry's Annual Report. This year, consistent with the *Budget Transparency and Accountability Act* reporting requirements, the Ministry intends to produce an Annual Performance Report which will incorporate both the broader spectrum of annual indicators that have been included in past Annual Reports and the performance measures detailed in the Ministry's Performance Plan. Finally, many aspects of health sector performance are addressed in the Provincial Health Officer's Annual Report.

The intent of the above comparison is to demonstrate that Ministry performance is measured continuously according to a variety of criteria and that the majority of these criteria apply to the performance of the broad health care sector.

SECTION 3

PERFORMANCE MEASURES AND TARGETS FOR MINISTRY PROGRAM AREAS

Regional Programs
Strategic Programs
Medical Services Plan
Pharmacare
Corporate Programs
Information Management Group
Labour Relations & Negotiations Support
Innovation Office

The following apply to all of the performance measures, targets and budget figures presented in this section:

1. The operating budget figures for 2002-2003 and 2003-2004 are currently unavailable as future government directions are unconfirmed. The Ministry will be updating this portion of the Performance Plan on the website once these figures are confirmed.

2. The targets presented for the performance measures assume there will be growth in yearly program operating budgets. These targets may need to be revised pending confirmation of the operating budgets.

Program:
Regional Programs

Performance Measure	Target			Link to Strategic Goals
	2001 – 2002	2002 – 2003	2003 – 2004	
Tertiary Programs • Increase in angioplasty, cardiac surgery and electrophysiology volumes and rates, in accordance with appropriate guidelines (base in 00/01 for angioplasty – 4,115; cardiac surgery – 3,250; electrophysiology – 1,300).	Rates will increase by at least 5%. Volumes to reach: Angioplasty 4,315 Cardiac Surgery 3,050 Electrophysiology 1,500	Rates will increase by at least 5%. Volumes to reach: Angioplasty 4,530 Cardiac Surgery 3,200 Electrophysiology 1,575	Rates will increase by at least 5%. Volumes to reach: Angioplasty 4,755 Cardiac Surgery 3,360 Electrophysiology 1,650	Goals 1,4,6,7
• Increase capacity for radiation therapy cases (base in 00/01 – 9,779).	Rates will increase by 10.1% to a volume of 10,767	Rates will increase by 2.6% to a volume of 11,047	Rates will increase by 2.7% to a volume of 11,345	1,4,6,7
• Increase capacity for chemotherapy treatments (base in 00/01 – 20,886).	Rates will increase by 7.3% to a volume of 22,411	Rates will increase by 5.4% to a volume of 23,621	Rates will increase by 5.9% to a volume of 25,015	1,4,6,7
• Ensure BC residents registered with end-stage renal disease or progressive renal insufficiency measured by the: - percent of registered chronic renal patients and acute/short- term patients receiving dialysis	100%	100%	100%	1,4,6,7
- percent of registered progressive renal insufficiency and peritoneal dialysis patients receiving education and follow-up.	N/A	70%	90%	1,4,6,7

Program: Regional Programs continued...				
Emergency Health Services • Ambulance response times less than 8 minutes 90% of the time for most urgent cases.	1% increase in the number of emergency calls responded to in under 8 minutes	1% increase in the number of emergency calls responded to in under 8 minutes	1% increase in the number of emergency calls responded to in under 8 minutes	1,2,6
Continuing Care • Increase the number of clients receiving home support services (base in 99/00 – 41,418 clients).	Increase in number of clients	Increase in number of clients	Increase in number of clients	1,5,6
• Increase the number of clients over the age of 75 receiving home nursing services (base in 99/00 – 36,914).	Increase in number of clients	Increase in number of clients	Increase in number of clients	5,6
• Open 2000 new residential care beds by 2004/05.	N/A	666 new beds	667 new beds	5,6
Acute Care • Increase the percentage of day surgeries performed (base in 99/00 – 62% of surgeries were day surgeries).	Increase in percent of day surgeries	Increase in percent of day surgeries	Increase in percent of day surgeries	2,4,5,6
• Decrease "preventable" admissions (base in 99/00 – 4.1 cases per 1,000 hospitalizations were due to ambulatory care sensitive conditions).	Decrease the hospitalization admission rate for ambulatory care conditions	Decrease the hospitalization admission rate for ambulatory care conditions	Decrease the hospitalization admission rate for ambulatory care conditions	2,4,5,6

Program: Regional Programs continued...				
Public and Preventive Health • Immunization rates for 2-year-olds (MMR – measles, mumps, rubella; Pentacel – diptheria, pertussis, tetanus, polio, haemophilus influenza type B).	87%	91%	95%	1,3,4,6
• Percentage of identified critical hazards corrected for licensed food, waterworks and swimming pools.	100%	100%	100%	1,6,9
• Percentage of identified critical hazards in licensed community care facilities that are corrected.	100%	100%	100%	1,6,9
Adult Mental Health • 30-day community follow-up rates on discharge for persons hospitalized for mental illness (27.5% of clients discharged are connected to a mental health centre and 60% to a physician within 30 days).	Increase in community follow-up rates	Increase in community follow-up rates	Increase in community follow-up rates	1,2,6
• Move towards more health authorities attaining a lower readmission rate (97/98 provincial readmission rate was 15% and the range was 12% to 19%).	Reduction in readmission rates	Reduction in readmission rates	Reduction in readmission rates	1,3,6
Operating Budget (millions)	**2001 – 2002**	**2002 – 2003**	**2003 – 2004**	
	$5,729.023			

Program: Strategic Programs				
Performance Measure	**Target**			**Link to Strategic Goals**
	2001 – 2002	2002 – 2003	2003 – 2004	
• Service quality to clients measured by: -Turnaround time on payment requests received by accounting operations.	Processed within 10 working days	Processed within 10 working days	Processed within 10 working days	Goal 8
• Development of Health Sector and Ministry Strategic Plans.	N/A	Completion of 3-year Strategic Plan	N/A	7,8
• Publication of the Annual Performance Report.	Completion June 30	Completion June 30	Completion June 30	8
Operating Budget (millions)	**2001 – 2002**	**2002 – 2003**	**2003 – 2004**	
	$42.253			

Program: Medical Services Plan				
Performance Measure	**Target**			**Link to Strategic Goals**
	2001 – 2002	2002 – 2003	2003 – 2004	
• Process 90% of claims within 30 days.	Process 90% of claims (assuming continued historic trend of 5% increase in claim volume)	Process 90% of claims (assuming continued historic trend of 5% increase in claim volume)	Process 90% of claims (assuming continued historic trend of 5% increase in claim volume)	Goal 6
• Registration and premium billing telephone response times.	3-5 minute response time	Less than 3 minute response time	Maintain less than 3 minute response time	6
Operating Budget (millions)	**2001 – 2002**	**2002 – 2003**	**2003 – 2004**	
	$2,243.988			

Program: Pharmacare				
Performance Measure	**Target**			**Link to Strategic Goals**
	2001 – 2002	2002 – 2003	2003 – 2004	
• Process new drug benefit submissions within 4 months.	80% of new submissions	85% of new submissions	90% of new submissions	Goals 1,2,4,5,8
• Process the Special Authority requests within the following targets: - Urgents (24 hours) - RDP (48 hours) - Others (2 weeks)	80% completed	83% completed	86% completed	1,2,8
Operating Budget (millions)	**2001 – 2002**	**2002 – 2003**	**2003 – 2004**	
	$674.150			

Program:
Corporate Programs
(including Human Resources Division, Legislation and Professional Regulation, Emergency Preparedness and Information and Privacy Branch)

Performance Measure	Target			Link to Strategic Goals
	2001 – 2002	2002 – 2003	2003 – 2004	
• Services are provided to the satisfaction of the Program areas in support of their Program objectives through the: - Creation of a career development process to meet the personal, professional and corporate needs of the Ministry of Health.	Develop core competencies for the following areas by March 31, 2002: Leadership Communication Managing performance Change and transition management	Develop core competencies for the following areas by March 31, 2003: Managing Performance Change and transition management Continuous improvement Positive work environment		Goal 9
Operating Budget (millions)	**2001 – 2002**	**2002 – 2003**	**2003 – 2004**	
	$7.956			

Program:
Information Management Group
(Corporate Programs)

Performance Measure	Target			Link to Strategic Goals
	2001 – 2002	2002 – 2003	2003 – 2004	
• Province wide information management strategies, policies, and standards are developed and maintained adequately.	Timely provision of Strategic Plan, Information Resource Management Plan and technical standards	Timely provision of Strategic Plan, Information Resource Management Plan and technical standards	Timely provision of Strategic Plan, Information Resource Management Plan and technical standards	Goals 5, 6, 8
• Leadership and support is provided to the Ministry and province wide information and technology initiatives.	Increased percent of initiatives executed within time and budget	Increased percent of initiatives executed within time and budget	Increased percent of initiatives executed within time and budget	1, 2, 3, 5, 6, 9
• Information and technology infrastructures that support the Ministry's business functions are provided and maintained.	Increased electronic service delivery	Increased electronic service delivery	Increased electronic service delivery	4, 5, 6, 8
Operating Budget (millions)	**2001 – 2002**	**2002 – 2003**	**2003 – 2004**	
	$55.239			

Program:
Labour Relations & Negotiations Support

Performance Measure	Target			Link to Strategic Goals
	2001 – 2002	2002 – 2003	2003 – 2004	
• To conclude agreements with the BC Medical Association/physicians within the mandate: - 8 main table settlements - series of local contracts	Settle 8 main agreements through negotiation or arbitration			Goals 3, 4, 5
Operating Budget (millions)	2001 – 2002	2002 – 2003	2003 – 2004	

Program:
Innovation Office

Performance Measure	Target			Link to Strategic Goals
	2001 – 2002	2002 – 2003	2003 – 2004	
• Improve access to necessary medical care for all British Columbians by increasing the percentage of physicians working under Alternative Payment Program (APP) arrangements (base in 99/00 – 26% of physicians were paid in whole or part through APP arrangements).	3% increase over base	3% increase	3% increase	Goals 3,6
Operating Budget (millions)	**2001 – 2002**	**2002 – 2003**	**2003 – 2004**	

SECTION 4

LINK TO MINISTRY STRATEGIC GOALS

	Ministry Strategic Goal								
Program	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Regional Programs	✓	✓	✓	✓	✓	✓	✓		✓
Strategic Programs							✓	✓	
Medical Services Plan						✓			
Pharmacare	✓	✓		✓	✓			✓	
Corporate Programs									✓
Info. Management Group	✓	✓	✓	✓	✓	✓		✓	✓
Labour Relations & Neg.			✓	✓	✓				
Innovation Office			✓			✓			

LINK TO GOVERNMENT PRIORITIES

Government Strategic Goal	Relevant Ministry Goal Statement	Clarifying Remarks
Goal 1: British Columbians will be healthy.	Goals 1-9 (see Appendix B).	All Ministry Goals and Objectives deal directly with the provision of health care for the population.
Goal 2: The quality of our health care will continue to improve.	Goal 6: The health services system will provide consistently high quality health services that improve health and health outcomes, and satisfy British Columbians' expectations.	While all Ministry Goals deal with the provision of high quality health services, Goal 6 specifically addresses quality.

Goal 3: BC will keep its financial house in order.	Goal 7: The regionalized system will be accountable to the Minister of Health, with health authorities operating according to plans approved by the Ministry and within the resources allocated to them. Goal 8: Programs delivered directly by the Ministry will be well managed.	
Goal 8: All citizens will be able to lead lives of dignity and security.	Goal 2: British Columbians will have access to health care services within an acceptable time period. Goal 3: British Columbians will have access to health care services within specified geographic distances. Goal 4: British Columbians will have an adequate supply of health care services.	Government Goal 8 deals in part with opportunity for those with disabilities to participate fully in all aspects of society. The Ministry Goals deal with providing access to health care services for all citizens.
Goal 9: Women will achieve greater economic and social equality.	As above.	Government Goal 9 deals in part with access to required reproductive services in all areas. The Ministry Goals deal with providing access to health care services for all citizens.

SECTION 5

MINISTRY OF HEALTH PROGRAM OPERATING BUDGETS

PROGRAM	OPERATING BUDGET (millions of dollars)[1] 01/02	FTE's[2] 01/02
Regional Programs	$5,729.023	327
Emergency Health Services	175.136	1,785
Strategic Programs	42.253	328
Medical Services Plan	2,243.988	401
Pharmacare	674.150	87
Corporate Programs[3]	7.956	90
Information Management Group	55.239	202
Other[4]	307.127	140
TOTAL	$9,234.872	3,360

(Source: BC Ministry of Finance Estimates, April 2001)

Notes:

1. Figures represent net budget amounts.
2. Figures represent Ministry Full Time Equivalents (FTE's).
3. Corporate Programs should be differentiated from Corporate Services. Corporate Services, as listed in the BC Ministry of Finance Estimates, is comprised of Corporate Programs, Information Management Group, Communications and Issues Management, Strategic Programs, and Labour Relations and Negotiations Support.
4. "Other" consists of the Minister's Office, Debt Servicing Contributions, Amortization of Prepaid Capital Advances, Communications and Issues Management, Labour Relations and Negotiations Support, Innovation Office, Vital Statistics, Health Special Account (including recoveries), and Medical and Health Care Services Special Account.

SECTION 6

LINK TO OTHER MINISTRY PLANS

Major Capital Projects

The Ministry currently has one major capital project. Work is underway to construct two new health care facilities - The Fraser Valley Health Centre and the Eastern Fraser Valley Cancer Centre - on lands owned by the Regional Hospital District on Marshall Road in Abbotsford, BC. The Fraser Valley Health Centre is a 300-bed acute-care hospital intended as a replacement for the Matsqui-Sumas-Abbotsford Hospital located in Abbotsford. The Eastern Fraser Valley Cancer Centre is a new facility. Both facilities will provide services to the local health area as well as specialized programming to the residents of the entire Fraser Valley Health Region. The Ministry of Health provided approval and planning funds in June 2000 to proceed with planning for these facilities.

The current estimated total cost of the project, based on the Facility Program dated January 31, 2001 is $210.5 million.

Appendix D contains the Executive Summary of the Business Case for this project. This document summarizes the outcome of the planning process and contains the following:

- The objectives of the project;
- The costs and benefits of the project; and
- The risks associated with those costs and benefits.

Information Resource Management Plan

The Ministry is currently updating a five-year Information Resource Management (IRM) plan, which covers requirements through to 2003. The IRM Plan for 2001/02 is attached as Appendix E.

Human Resources Management Strategic Plan

The Ministry has developed a Human Resources Management Strategic Plan for the period through to 2003. A summary of this Plan is attached as Appendix F.

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APPENDIX A

ENVIRONMENTAL SCAN
2001 to 2004

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1.0 DEMOGRAPHICS

Population Growth

British Columbia's population has been growing steadily. Between 2000/1 and 2005/6, the population is expected to increase about 1.5% per year, with a cumulative increase of 7%. This will bring BC's population up to 4,372,200. The largest component of the projected increase is net international migration, which brings an average of 27,000 people to BC each year. Net inter-provincial migration adds an average of 17,000 people per year, and natural increase (births less deaths) adds an average of 12,000 people per year. While immigration from within Canada and other countries is growing, the rate of natural increase has been steadily dropping and is expected to become negative growth within 25 years.

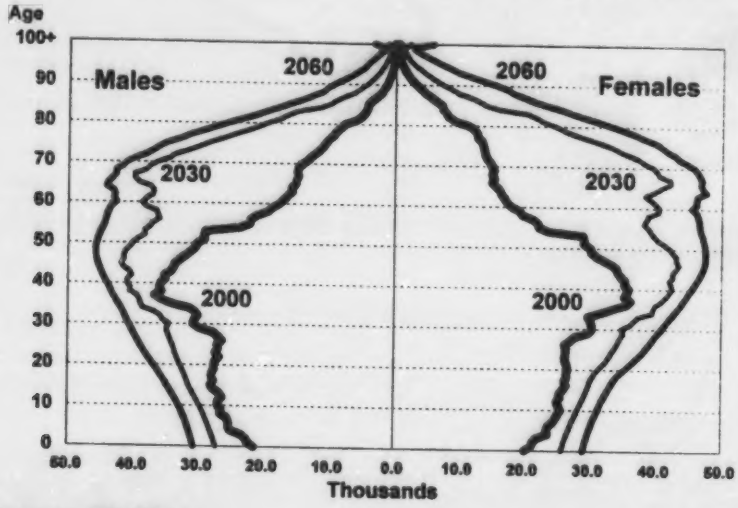
Regional Growth

All regional populations will increase over the next five years; however, the amount of growth varies greatly. Between 2000/1 and 2005/6, the East Kootenay and Peace Liard regions are expected to grow by 1% or less. This is compared with the fastest growing regions of Fraser Valley, South Fraser Valley, Simon Fraser, Burnaby, and Coast Garibaldi, which are expected to increase by 10% or more during this period.

Ageing of the Population

The age structure of the British Columbia population is changing. The median age is expected to increase from 37.5 in 2000/1, to 39.5 in 2005/6. While there is growth in all age groups over 40, the greatest will be in the oldest age groups (80+). This is significant, for while the numbers of individuals in these age groups are relatively small, the per capita impact on health system expenditures is very high. The following figure shows how the age structure of the population is changing.

British Columbia Population - 2000, 2030 and 2060



Source: BC Stats

July 2000/Proj 0005

2.0 HEALTH OF BRITISH COLUMBIANS

Self-Rated Health Status

The National Population Health Survey provides information on how Canadians rate their own health. In 1998, 63 percent of British Columbians over age 12 rated their health as excellent or very good. This is unchanged since 1994 and 1996.

The proportion of British Columbians reporting their activities to be limited as a result of a long-term physical or mental health problem is unchanged from 1996, at 21%. This is slightly higher than the Canadian average, which is 18%.

Morbidity and Mortality

The major causes of death in British Columbia, in 1998, were circulatory diseases, such as heart disease and stroke (36% of deaths); cancers (27%); respiratory diseases (11%); and external causes such as accidents and suicide (7%). The impact of premature deaths is shown by the potential years of life lost rate per 1,000 standard population (PYLLSR).

Potential years of life lost are measured as the total number of years of lifelost from an established life expectancy of 75 years. Causes showing the highest PYLLSR are external causes (14.23 per 1,000 pop.) and cancers (13.55 per 1,000 pop).

The major reasons for inpatient hospital use in 1998/99 (based on 1998/9 CIHI data) were:

- external causes (such as poisonings, accidents, falls and injuries) = 20% of inpatient days;
- circulatory diseases (heart disease and stroke) = 15% of inpatient days; and
- mental disorders = 12% of inpatient days.

The major reasons for utilization of day care surgery in 1998/99 (based on 1998/9 CIHI data) were:

- digestive system diseases = 20% of cases;
- genitourinary system = 15% of cases;
- nervous and sense = 15% of cases; and
- external causes = 12% of cases.

3.0 HEALTH EXPENDITURES

3.1 PROVINCIAL GOVERNMENT EXPENDITURES

International Comparisons

International and inter-provincial comparisons provide benchmarks for appreciating the relative order of magnitude, level and appropriateness of health care expenditures, and some indication of the direction in which these are likely to move.

At the international level, Canada ranks among the group of industrialized countries, which spent close to 10 percent of GDP on health care during 1997; this group includes Germany, Switzerland and France. However, Canada is also frequently compared with two statistical outliers: the United States, which spends more than any other industrial country on health care; and the United Kingdom, which spends the least on health care among G-7 countries.

One way to compare expenditures on health care is to look at how health expenditures relate to gross domestic product (GDP). Another way to compare health care spending is to look at each country's per capita health expenditures, converted into purchasing power parity (PPP) U.S. dollars. PPP describes the cost to purchase an identical basket of goods and services in different countries, if they were purchased at local prices but paid for in US dollars.

Country	% GDP (1998)	% GDP (1999)	PPP per Capita (1998)	PPP per Capita (1999)
USA	13.6%	13.7%	$4,178	$4,390
Switzerland	10.4%		$2,794	
Germany	10.6%	10.5%	$2,424	$2,476
France	9.5%	9.5%	$2,055	$2,130
Canada	**9.5%**	**9.5%**	**$2,312**	**$2,411**
United Kingdom	6.7%	7.0%	$1,461	$1,583

(Source: OECD Health Data 2000)

Note: 1999 % GDP and PPP per Capita for Switzerland were not available at the time of publication.

The World Health Organization compares health spending with health outcomes, such as life expectancy at birth, and disability-adjusted life expectancy (DALE), which estimates the years of life without disability expected at birth. The following table shows that spending on health care does not determine health outcomes. The United Kingdom, which spends the smallest percentage of GDP, has better outcomes than the United States, which spends the most. Canada's health outcomes are similar to those of other countries that devote a similar share of national resources to health care.

Country	Life expectancy at birth (1999)		DALE at birth (1999)	
	Females	Males	Females	Males
United States	80	74	73	68
Switzerland	83	76	76	70
Germany	80	74	74	67
France	84	75	77	69
Canada	**82**	**76**	**74**	**70**
United Kingdom	80	75	74	70
Japan	84	78	77	72

(Source: World Health Organization, World Health Report 2000)

While Canada performs well in terms of health status in relation to health spending, another international comparison performed by the WHO gave Canada's performance a lower rating. The World Health Report 2000 ranked countries in terms of their overall health system performance. This aggregate measure includes those not commonly dealt with in analyses of health systems, for example, fairness of financial contributions and responsiveness of the system. On this measure, Canada ranked 30th, behind many smaller and less wealthy countries. This indicates that Canada's health system has room for improvement.

Health Care Expenditures By Province, 2000

In 2000, BC's provincial government spent $2,120 per capita, up from $2,026 in the previous year. BC spent 2.6% more than Alberta, 5.6% more than Ontario and 11.5% more than Quebec.

3.2 FEDERAL GOVERNMENT CONTRIBUTIONS

The Canada Health and Social Transfer (CHST) is a federal transfer payment to support health and advanced education services in the provinces. Between 1995/96 and 1998/99, federal transfers declined sharply, leaving all provinces with a severe funding crisis. This is shown in the following table.

Federal Cash Transfers to British Columbia

Fiscal Year	Cash Transfer Amount	Change from previous year	Cumulative change
	$ millions	$ millions	$ millions
1993/94	2,190		
1994/95	2,236	+46	+46
1995/96	2,235	-1	+45
1996/97	1,843	-392	-347
1997/98	1,724	-119	-739
1998/99	1,828	+104	-635
1999/00	1,938	+110	-525
2000/01	2,100	+162	-363
2001/02	2,644	+544	+181
2002/03	2,831	+187	+368
2003/04	2,941	+110	+478

(Sources: Finance Canada Official Estimates, Feb/Mar 2001; BC Ministry of Finance Estimates, April 2001)

Starting in 1999/2000, federal transfers started to rise again; cash payments to BC were $2.2 billion for 1999/2000 and almost $2.4 billion in 2000/2001. Cash payments along with federal tax transfers totalled approximately 18% of BC's estimated revenues for 2000/2001.

On September 11, 2000, the First Ministers reached an agreement on a shared action plan that would provide BC with an additional $2.8 billion in CHST cash over 5 years beginning in 2001-2002.

3.3 PRIVATE EXPENDITURES

In addition to provincial and federal funding for health services, private funding is also an important component. Private expenditures include private health insurance expenses (which make up 35% of the total private spending), and out-of-pocket spending (which makes up 65% of the private spending). Private expenditures are primarily for health-related services not covered by provincial

programs, such as eyeglasses, non-prescription medications, vitamins/supplements and dental services.

Private expenditures can be measured as the portion of total health expenditures. In 2000, Canada spent a total of 9.3% of Gross National Product (GNP) on health-related goods and services. Of this, 71% was public expenditure, and 29% was private expenditure. Private expenditure as a percent of total health expenditure has been growing in the last two decades; in 1975, it was 23.8%, rising to 25.5% in 1990, and 29% in 2000 (source: CIHI).

The World Health Report 2000 compares the public/private funding ratios in various countries. Comparing with the same countries used above, we see that Switzerland, Germany, France and Japan have similar ratios, of about 70-80% public and 20-30% private. The outlier is the United States, which is only 44% public.

4.0 OUTSTANDING AND/OR EMERGING ISSUES

4.1 HEALTH SERVICE DELIVERY ISSUES

Integration

Increasing the integration and co-ordination of services is one of the objectives of health care reform. Regionalization and the establishment of health authorities funded on a global budget basis were intended to integrate the governance and funding aspects of the health care system. The next step is to create integrated systems of care to improve health service delivery.

Health authorities are making good progress toward this goal. The Innovation Forum held in the spring of 2000 produced many examples of integrated service delivery models developed by regional and community health authorities. Experts at the forum agreed that regionalization and integration of services create significant opportunities to improve service delivery. However, progress is slow and incremental. Challenges to the achievement of this objective include:

- Large investment in information infrastructure needed to support integrated delivery systems;
- Payment of physician services remains a responsibility of the Ministry of Health and Ministry Responsible for Seniors, yet physicians are key gatekeepers to most services under the responsibility of health authorities; and
- Since existing service demands must be met while new models are being introduced, new start-up funds are sometimes required.

Waitlists

The public views wait times as a serious problem and an indication of inadequate access to health care services. As a result, governments and health authorities are under considerable pressure to reduce waiting times by whatever means

possible. However, there is considerable disagreement about the nature and extent of the problem of waiting times, and the evidence does not show a clear solution to the problem since simply increasing funding often paradoxically results in increasing demand and longer wait lists.

There is a clear need to understand and manage this issue to ensure that those with the greatest need get priority and that wait times are reasonable and do not adversely affect patients' outcomes. There are a number of initiatives underway in BC and Canada intended to fill these gaps in knowledge and develop improved management strategies and waitlist policies. Included are the following:

- The first phase of BC's health action plan, announced in September 2000, included an investment of $180 million for training of critical care and operating room nurses and for improvement of access to operating rooms to reduce waiting times for surgical procedures.
- BC is the first province in Canada to provide the public with direct access to information on wait times, by procedure, hospital and physician; and
- BC is participating in a project with the western provinces to explore tolls for managing wait lists for cataract surgery, general surgery, hip and knee replacement and MRI screening.

Home Care

The funding, organization and delivery of home care services have become a prominent health policy issue in recent years. This is the result of developments within BC and pressure from the federal government for a universal home care program to be included under the *Canada Health Act*. Already, BC has shown a commitment to home care issues. The Ministry allocated $400 million for home care in 2000/01; an additional $9.3 million was invested as part of the health action plan in 2001/02. A proposed $48 million will go toward the renewal initiative, which includes $23 million in new funding. A number of emerging issues relating to home care will be addressed:

- Increasing demand for services, resulting from population ageing and increased numbers of frail elderly, an emphasis on shifting care from the hospital to the community and technological changes allowing more services to be provided in the community;
- Decreasing access to homemaker services in some jurisdictions and questioning whether homemaking is an essential component of the home care program;
- Funding for prescription medications required in community settings, which are fully funded in the hospital; and
- Policy issues around whether home care provided by family members should be publicly funded.

Rural Health

BC residents have poorer health status than those in urban areas, and therefore have increased need for health services. However, people living in rural and remote areas face a number of challenges in accessing health care, due to factors of population and geography. These include:

- Difficulty in recruiting and retaining health professionals, particularly physicians;
- An insufficient population base to support the range of health professional and services that are available in more populated areas;
- Lack of community support services in small isolated communities;
- Difficult or non-existent surface transport because of long travel distances, topography and hazardous weather conditions; and
- Costs of travel and accommodation to other special needs associated with obtaining care at geographically distant secondary and tertiary centres.

Analyses of utilization patterns show that *per capita* expenditure on medical services (i.e., services funded through MSP, including physician services) is less in remote and rural communities. Consumption of acute/rehabilitation hospital days in rural communities is actually higher than the provincial average; rural residents receive a higher proportion of their care in speciality and teaching hospitals.

Distribution and access are key issues in the delivery of health care in BC's remote and rural communities. These special problems have received attention by a number of groups, including the Ministry of Health, and a series of programs has been established to address identified problems. Health action plan initiatives include:

- A grant of $2.0 million over 5 years awarded to the University of Northern British Columbia. The grant will contribute to the improvement of the quality of health care and health service delivery in rural and remote regions.
- The BC HealthGuide Handbook, the HealthGuide Nurseline and HealthGuide Online. Focussed on promoting self-care, the Handbook is a common health concerns reference guide, The Nurseline provides toll-free, 24-hour access to confidential telephone information from registered nurses, and the online guide provides information via the Internet.The Ministry invested $7.6 million in 2000/01 and $9.2 million is proposed for the Healthguide program in 2001/02.

Although of benefit to all British Columbians, these initiatives target rural and remote area residents: those who encounter obstacles in accessing health services appropriate to their needs within an appropriate timeframe.

Services to the Mentally Ill

BC has approximately 800,000 persons with some form of diagnosable mental illness, including about 100,000 persons with severe mental illness. About 15% of the Ministry's total expenditures are attributable to mental health-related

services. In December 2000, the health action plan provided $2 million for 2000/01 to support acute hospital diversion of people with mental illness. $4 million is proposed for annualization of this initiative in 2001/2002.

The Ministry of Health has developed a Mental Health Policy Framework, and is working closely with health authorities to improve the performance of the mental health system throughout the province. The policy framework has identified the following key policy directions:

- **Improved accessibility and responsiveness for people with serious mental illness and their families** —This includes increased emphasis on early detection, timely assessment, intervention and follow-up and increased reach of services through outreach and active case-finding.

- **Improved appropriateness of services and supports** —This includes aligning services with evidence of best practices, ensuring appropriate utilization of in-patient hospitalization, improved case management, improved access to specialized and tertiary services and improved access to effective primary care.

- **Improved outcomes** —This includes improved health and quality of life, reduced premature mortality and improved consumer/family satisfaction with services.

- **Improved participation of consumers and families**—This includes increased participation in planning and managing the mental health sector, improved advocacy, provincial use of a patient charter of rights and improved communication with the public and consumers.

- **Improved system management**—This includes improving the amount and quality of planning for the mental health system, increasing mental health funding and better targeting those funds, better monitoring system performance and maintaining an effective work force.

Relationship with Ministry for Children and Families

Responsibility for children's health care is shared with the Ministry for Children and Families (MCF). Most community-based programs and services for children are funded and delivered through MCF, including: children's mental health services, early intervention programs, prenatal prevention and promotion programs and community support and respite services for children with special medical needs.

A number of services for children are a joint responsibility. MCF establishes the policy, funding and delivery framework for the following services that are managed and delivered by health authorities: public health nursing, speech and language pathology, audiology and nutrition and dental health services. Medical and hospital services for children are funded through the Ministry of Health as part of the provincial health care system. Prevention and control of

communicable disease, including immunization, has also remained a Ministry of Health responsibility.

There is confusion among the public, service providers and even Ministry staff about roles and responsibilities in relation to health care for children. Lack of co-ordination at the policy and service-delivery levels has been identified by the Children's Commissioner and other experts as one particularly important area requiring improvement.

4.2 BUDGET ISSUES

Rising input costs will continue to put pressure on health expenditures. Health human resource costs are estimated to represent 80% of expenditures. Therefore, even small increases in wage settlements translate into large expenditure increases. The building of additional beds means increased ongoing operating costs. The planned obsolescence of information technology requires ongoing reinvestment in infrastructure, which, although introducing new capabilities, dilutes the advantage of them. For the most part, these expenditure increases do not result in the provision of additional services.

Pressures on Pharmacare Budget

Despite cost-saving measures, improvements and evidence-based decision making, Pharmacare expenditures have continued to rise. The primary cost driver for Pharmacare is increasing prices of new patent drugs; however, increased per capita utilization, population increase and population ageing are also cost drivers. Cost pressures on Pharmacare are expected to continue.

Capital Funding

Hospital infrastructure, both buildings and equipment, are ageing and in urgent need of replacement. As federal funding for health care decreased over the past years, hospitals have been forced to dedicate a growing proportion of their budgets to cover urgent operational requirements. Capital requirements have been neglected resulting in ageing equipment and the inability to replace basic equipment or invest in new technologies. Capital funding for new infrastructure, upgrading existing facilities and upgrading equipment will be major cost pressures for years to come. Provisions have been included in the health action plan for funding of hospital equipment such as MRI's, CT scanners, beds, overhead lifts and other clinical equipment. The government announced $75 million in September 2000 followed by a further $66 million in December.

Continuing Care Program Expansion

The Ministry of Health has a strong commitment to continuing care issues. The continuing care renewal plan is a five-year strategy, with funding through the health action plan, to achieve optimal health care provision for seniors and people with disabilities or chronic or terminal illness. Growing concerns in continuing care include calls for increased institutional care beds, expanded home care/home support, increased access to respite services and calls for

informal caregivers to be compensated for the care they provide. To this end, the health action plan has funded the following:

- The addition of 2,000 new residential care beds over 5 years:
- $9.3 million in 2000/01 and a total of $48 million proposed for 2001/02 for home care services;
- $1.3 million in 2000/01 and $2.9 million proposed for 2001/02 for palliative care.

Health Data

There is increasing demand for and availability of health data, including information on health system performance, treatments and outcomes and surveillance of specific diseases. Provider organizations are demanding better and more comprehensive data for planning and evaluation purposes, while consumers want better information to fully participate in their own care and to increase accountability of providers and governments. While these are positive trends in many ways, they also raise concerns about privacy of personal information, uneven quality of information and costs of collecting and processing ever greater amounts of data.

Technology

Technology continues to have a significant impact on the health care system, due to increased use of existing technologies (e.g., expensive diagnostic equipment) and the development of new technologies. New technologies have the potential to improve access and quality of care; however, they also raise issues of capital and operational costs, appropriateness, privacy/confidentiality and ethical concerns. Some of the emerging technologies are discussed below:

- **Telehealth:** Telecommunications technology is being used increasingly to allow clinicians and patients to interact at a distance, to extend consultation among clinicians and to facilitate distance education for health care providers. Telehealth has the potential to improve access to service and to reduce patients' travel costs. Few applications are shown to reduce overall costs.

- **Human Genome Project and Biotechnology:** The human genome project will soon provide health researchers with rich new information on the genetic basis of diseases and treatments and will lead to increased genetic testing and gene therapy. Simultaneously, biotechnology is providing new methods of production and new products. Key issues for the Ministry are pharmaceuticals and vaccines, tissue engineering and xenotransplantation.

  Taken together, the human genome project and biotechnology are stretching the boundaries of medical care very rapidly. While these technologies have great potential for improving medical care, they are also expected to lead to significant financial pressure on the health care system, as well as creating significant ethical concerns.

4.3 HEALTH HUMAN RESOURCES

Physician Services

- The government and the British Columbia Medical Association (BCMA) signed a new management agreement in January 2000. Negotiations for a new Master Agreement are to be concluded by September 30, 2000, or the matter will be referred to a conciliator.
- The total supply of physicians has been increasing steadily in relation to population. Between 1968 and 1998, the average population to physician ratio has decreased from 755:1 to 533:1. While the overall supply of physicians has been increasing in recent years, the relative proportion of general practitioners has decreased. This has caused the average population to GP ratio to increase from 857:1 in 1991, to 935:1 in 1999.
- While overall supply has outpaced population growth, there continues to be persistent problems in some parts of the province in recruiting and retaining enough physicians to meet the needs of the population. In addition to a general shortage in rural and remote areas, some regions are reporting difficulties in recruiting specialists such as radiologists, oncologists and orthopedic surgeons.
- As a result of these problems, a Subsidiary Rural Agreement was signed with the BCMA in April, 2000, which provided new funding for on-call premiums, expanded Rural Locum coverage, more rural based training programs and the establishment of a Joint Committee on Rural Issues. In addition, the Ministry of Health has negotiated several community agreements (with Prince George and Williams Lake), to increase funding for physicians in specific communities.
- Due to current legislation and the Master Agreement, government has limited ability to manage many of the problems with supply and distribution of physicians. For example, the *Medicare Protection Act* does not allow government to ensure that new physicians set up practice in areas where services are needed and because membership in the BCMA is not a condition of practice in BC, there is currently no way to ensure that individual physicians honour the terms of the Master Agreement.

Nursing and Other Professional Services

- BC is currently experiencing a nursing shortage, particularly in specific regions (i.e., north), and in several specialty areas (i.e., intensive care, surgery). The projected net shortage of nurses in BC in 2000 and 2001 will be approximately 700 per year. After factoring in previously announced nursing measures (50 nurse refresher seats and 400 nursing seats approved in 2000/01, 400 new nursing education seats for 2001/02, and hiring up to 600 additional registered nurses and licensed practical nurses), the shortage is expected to decline to about 400 per year in 2003 and 2004.
- A recent survey of health authorities showed that there were about 1300 difficult-to-fill vacant nursing positions. The nursing shortage impacts on health authorities' ability to deliver services and to manage their budgets (due to high nursing overtime costs).

- The shortage is increased by other problems affecting the number of nurses available to work: burnout, poor morale, excessive sick leave, workplace injuries and long term disability leave. Further, as the nursing workforce is ageing and many are approaching retirement, these problems are expected to continue.
- Some provisions in the collective agreement and some management practices are impeding resolution of nursing issues. For example, collective agreement provisions around casuals' seniority restrict the ability of part-time nurses to work casual shifts and result in newly graduating nurses having difficulty finding sufficient casual hours. Management practices around work assignments result in registered nurses doing some tasks that could be performed by other workers.
- A similar shortage situation is seen in other health professions, including pharmacy, rehabilitation therapies and medical radiation technology. The health action plan includes funding of $.275 million in 2000/01 and $4.8 million proposed in 2001/02 for seat increases for other health professionals (LPN's and nurses also included in these amounts). These shortages will be addressed in the following way:
  - 10 new medical radiation technologist seats at the BC Institute of Technology
  - $130,000 proposed for additional annualized funding of 20 more medical radiation technologist seats beginning April 1, 2001. Funds are proposed to be made available in 2002/2003 to continue providing additional seats.
  - $3.56 million in 2000/01 and $4.3 million proposed in 2001/02 for position creation and expansion of the Paramedic Training Network.

Status of Health Sector Collective Bargaining

Bargaining units represent a wage and benefit base of over $3.4 billion. All collective agreements in the health sector expired on March 31, 2001. An agreement was reached with HEU in early April. As of mid-April, the nurses' union (BCNU), the Health Services Association (HAS) and the physicians' association (BCMA), had not reached settlements. Labour unions are signalling their intention to seek substantial salary increases as well as improved working conditions in this round of bargaining. The BC Ambulance Service (BCAS) collective agreement has been ratified and will be signed by the first week of May 2001.

4.4 OTHER ISSUES

Changes to health service delivery for Aboriginal people

There are a number of changes relating to Aboriginal people that are expected to impact on the health care system. These include treaty negotiations, transfer of federal programs to local First Nations control and Ministry of Health policy around services to Aboriginal people.

Most of BC's First Nations are participating in treaty negotiations. Treaties are expected to provide for a greater measure of local control over community services, including governance and delivery of health care. The federal government is also negotiating agreements to transfer responsibility for

administration of MSP premiums and other health-related programs to First Nations. These initiatives will primarily impact status Indians living on treaty settlement lands.

In 1999, the Ministry of Health informed health authorities of its policy on service to Aboriginals. The Ministry's policy is that health authorities are responsible for providing health services to all residents of BC, including Aboriginals on reserve. Health authorities are required to develop Aboriginal Health Service Plans this year to demonstrate that they have plans to meet the health needs of the Aboriginals living in the region.

Pressures for two-tier system

Public anxiety about the ability of the publicly funded health care system to provide timely access to needed services has led to renewed calls for increased private sector involvement in the delivery of health care. This is especially evident in Alberta. The public debate triggered by the current Alberta proposal focuses on the role and impact of the private sector on the delivery of health care services in Canada and on the long term sustainability of the medicare system.

In BC, the number of private clinics is increasing and there is greater public awareness of the activities of these clinics. There is a need to ensure that the activities of private clinics are safe, legal and acceptable to the public.

Increasing public expectations

Public expectations for health care services have been steadily increasing and this trend is expected to continue. These increased expectations are the result of a number of factors including:

- Public awareness of the many factors which affect health, leading to calls for the health care system to cover a wider range goods and services;
- An expanding definition of "health care" based on medicalization of conditions once considered normal, the increasing prominence of alternative health care professions and the increasing number of interventions now possible;
- The trend towards professionalization of health-related services once provided by family members;
- Greater access to information on treatments; and
- Increasing media attention to health topics.

Recent court rulings

In recent years, courts have been more willing to find liability, not just against individuals but against the bodies seen to be responsible for the "system" in which wrongdoing occurred and those having the means to provide some real compensation to the victim. This means that organizations operating or funding health programs are increasingly being found responsible for the actions of individual employees or volunteers, regardless of whether the organization was directly responsible or negligent. In some cases (e.g., historical sexual abuse, Hepatitis C), these judgements are occurring long after the events in question.

Courts have also been more willing to make rulings about the programs that government must provide. Consumers are turning to the courts more frequently to try to force government to provide public funding for certain health-related services. Examples are the rulings on interpretive services for the deaf and the failed attempts to have in vitro fertilization covered.

Federal government initiatives

The federal government has developed a number of programs intended to support innovation and infrastructure development within provincial health care systems.

- Investment on an equal per capita basis, $21.1 billion over the next 5 years in the CHST, which supports health, post-secondary education, early childhood development and other social programs;
- Primary care funding split 70% for jurisdictions, with emphasis on timely access to services, establishment of interdisciplinary health care teams and integration of services;
- Contribution of over $7 million to initiatives in health information technology and telehealth in BC;
- Development of the Canadian Institutes of Health Research, to bring together and enhance the different streams of health research funding;
- The Canada Health Infostructure Partnerships Program, which supports innovative applications of information and communications technology to enhance health services;
- The Canadian Diabetes Strategy, which provides funding for diabetes prevention, surveillance and national co-ordination, as well as treatment for Aboriginals on reserve;
- Programs aimed at improving children's health, including enhancements to the prenatal nutrition program, funding for childcare and early intervention services and training on fetal alcohol syndrome;
- Canadian Contingency Plan for Pandemic Influenza, which is a process to clarify provincial/territorial/federal roles and responsibilities in relation to the projected influenza pandemic;
- $50 million in funding for the Innovations in Rural and Community Health Initiative, with four priority areas including rural and remote care, home and community care, access to and affordability of drugs and integration of service delivery;
- Development of a national organ and tissue donation strategy to increase rates of organ/tissue donation; and
- Reproductive and Genetic Technologies legislation, which will prohibit a number of practices and regulate the provision of other procedures, including setting standards for quality of care, reporting requirements and establishing a licensing regime.

APPENDIX B

MINISTRY STRATEGIC GOALS

GOAL 1:

British Columbians will continue to enjoy the best health status in Canada and that status will continue to improve.

OBJECTIVE 1.1:
To reduce the incidence of specific preventable diseases and deaths.
OBJECTIVE 1.2:
To assist individuals, practitioners and health authorities in planning for and responding to emerging diseases and changes in disease patterns.
OBJECTIVE 1.3:
To reduce inequalities in health status among people in British Columbia – especially Aboriginal people and those in geographic regions with lower health status than the general population.
OBJECTIVE 1.4:
Use the provincial health goals to stimulate social, environmental and economic actions to improve health in the broadest sense.

GOAL 2:

British Columbians will have access to health care services within an acceptable time period.

OBJECTIVE 2.1:
To develop, or reaffirm where now available, guidelines (i.e., minimally acceptable thresholds) for major areas of health services from preventive and primary care through acute and continuing care.

GOAL 3:

British Columbians will have access to health care services within specified geographic distances.

OBJECTIVE 3.1:
To develop, or reaffirm where now available, geographic access guidelines (i.e., minimally acceptable thresholds) for communities throughout the province.

GOAL 4:

British Columbia will have an adequate supply of health care services.

OBJECTIVE 4.1:
To ensure the supply of health care practitioners will be adequate and distributed equitably throughout the province.

OBJECTIVE 4.2:
To ensure that the quantity and distribution of capital resources, including facilities and equipment, are appropriate.

GOAL 5:

The health services system will be organized and managed to ensure the sustainability of Medicare so all parts of the system can provide excellent care in return for the public's investment.

OBJECTIVE 5.1:
To distribute resources appropriately to all areas of the province.
OBJECTIVE 5.2:
To satisfy the public that health care services are receiving sufficient funding and that the public is receiving good value for these resources.
OBJECTIVE 5.3:
To support an information infrastructure that meets the needs of the evolving regionalized health services system and the ministry's role within that system.
OBJECTIVE 5.4:
To improve public understanding of how the health services system works, what it costs and how to use it judiciously.

GOAL 6:

The health services system will provide consistently high quality health services that improve health and health outcomes and satisfy British Columbians' expectations.

OBJECTIVE 6.1:
To provide services which improve health and health care outcomes.
OBJECTIVE 6.2:
To satisfy the needs and expectations of patients and clients.
OBJECTIVE 6.3:
To ensure that self-regulated professions fulfill their obligations to maintain professional standards of performance.
OBJECTIVE 6.4:
To encourage the development of an integrated and comprehensive continuum of care.

GOAL 7:

The regionalized system will be accountable to the Minister of Health, with health authorities operating according to plans approved by the ministry and within the resources allocated to them.

OBJECTIVE 7.1:
To maintain an effective governance process for health authorities.
OBJECTIVE 7.2:
To promote and support a strong planning approach by health authorities.
OBJECTIVE 7.3:
To establish effective partnerships between health authorities and physicians.

GOAL 8:

Programs delivered directly by the Ministry will be well managed.

OBJECTIVE 8.1:
To strengthen accountability mechanisms for ministry programs.

GOAL 9:

The working environment within British Columbia's health services system will be informed by a client-centred focus and characterized by a spirit of co-operation and excellence.

OBJECTIVE 9.1:
To ensure that respective roles and responsibilities evolve within a framework of continuous improvement and providers have clear direction on how to work as a team to deliver high quality health care services.

OBJECTIVE 9.2:
To promote an environment of mutual respect among providers, support staff and patients.

OBJECTIVE 9.3:
To ensure a safe physical environment in the health services system where all who work in the environment are knowledgeable about protecting their own health and safety and contributing to a safe work place.

APPENDIX C

COMPARISON OF HEALTH SECTOR PERFORMANCE INDICATOR INITIATIVES

Indicator	MoH Annual Report	National 14 F/P/T	Government Strategic Plan	PIWG Health Authoritie
Infant mortality	✓	✓	✓	✓
Immunization rates (2 year olds)	✓	✓	✓	✓
Immunization of seniors	✓	✓	✓	1
Tobacco use	✓	✓	2	2
Life expectancy	✓	✓	3	
May not require hospitalization	✓		✓	✓
Mental health readmissions to hospital	✓		✓	✓
Paid home support hours per 1,000 by age	✓		✓	✓
Hip replacement wait times	✓	✓		✓
Knee replacement wait times	✓	✓		✓
Pertussis		✓		✓
Hospital admission rates for vaccine-preventable diseases, avoidable complications of diabetes		✓		4
PYLL due to injury, cancer, CVD		✓		5
Screening mammography	6	7		
Pap smears	✓		✓	
Surgical day case rates	✓			✓
Acute rehabilitation use	✓			✓
Practising nurses per 100,000 (RN/RPN, LPN)	✓		✓	
Food and waterborne diseases	✓	✓		
% alternate level of care days			✓	✓
Unintentional Injuries (hospitalizations and deaths)	✓			✓
Residential and home care days per 1,000, age 75+ and 85+	✓			✓
Immunization rate for residential clients	✓			✓
Immunization (flu) for residential care staff	✓			✓
LTC spaces per 1,000 population			✓	✓
Low birth-weight		✓		✓
Non-emergency cardiac surgery wait times	✓	✓		
Cancer radiation therapy wait times	✓	✓		
Trend rates for cancer and CVD		✓		
Turnaround time for cervical cancer screening results			✓	
Breast conserving surgery	✓			
Hip replacement surgery rates (per 1,000)	✓			

Note: MoH, F/P/T and PIWG stand for Ministry of Health, Federal/Provincial/Territorial and Performance Indicator Working Group, respectively.

Indicator	MoH Annual Report	National 14 F /P/T	Government Strategic Plan	PIWG Health Authorities
Knee replacement surgery rates (per 1,000)	✓			
Functional status after hip, knee replacement, cardiac surgery, rehab after stroke or cancer (improved quality of life)		✓		
Ambulatory care sensitive conditions				✓
Expected compared to actual stay				✓
Hepatitis A immunization for iv drug users, gay/bisexual men and people with HCV			✓	
Pharmacare expenditures and beneficiaries	✓			
Teen pregnancy			✓	
Physician services per 100,000 (GP, Specialized and Diagnostic)	✓			
Physicians per 100,000 (GP, specialized, total)	✓			
Nursing pay, training spaces			✓	
Hospital utilization rates	✓			
Hospital discharge rates per 100,000	✓			
Exposure to second-hand smoke	✓			
Proportion of population referred out to other hospitals by acute/rehab & tertiary care (acute)				✓
Proportion of hospital days attributed to non-residents (acute referrals in)				✓
Urgent and emergency surgeries	✓			
Total # surgical procedures	✓			
Organ transplants	✓			
MRI scans funded (#, rate)	✓			
CT scans performed (#, rate)	✓			
Residential care days by level of care	✓			
Home nursing care admissions/1,000 by age	✓			
Home and community care services (by type and patient group)		✓		
Paid homemaker hours by age group	✓			
Visits per 1,000 population for direct care (home care)				✓
Days per 1,000 pop for adult day care				✓
Number of falls in licensed adult care facility per 1,000 facility capacity				✓
Confirmed reportable incidents in licensed facilities per 1,000 facility capacity				✓
% licensed facilities, premises and waterworks inspected annually				✓
Critical hazard rating of waterworks system and food premises				✓
Incidence of HIV	✓			
Rates for CVD, breast, lung, colorectal and prostate cancers (life expectancy changes)		✓		

Indicator	MoH Annual Report	National 14 F /P/T	Government Strategic Plan	PIWG Health Authorities
Tuberculosis		✓		
Chlamydia		✓		
Wait times for residential care (no 2000 data)				✓
Waiting times for elective procedures (includes cardiac, dental, ear/nose/throat, general, gynaecological, neurosurgery, ophthamology, orthopedics, plastic, urology and vascular)	✓			
Cataract surgery wait times	✓			
Corneal transplant wait times	✓			
MRI diagnostic test wait time		✓		
BC Ambulance response rate	✓			
Hospital readmissions for hysterectomy, prostatectomy, cholecystectomy		✓		
Follow-up after hospitalization for persons with a health diagnosis				✓
Cataract surgery rates (per 1,000)	✓			
# micro-urinalysis test utilization (reduced # due to protocols)	✓			
Estimated reduced expenditure due to guidelines/protocols	✓			
BC government health care spending/ person	✓			
BC spending per person as a % of Canadian average (and interministry comparison)	✓			
Patient and general public satisfaction with service		✓		
Access to 24/7 first contact health services		✓		
Health information available in BC homes			✓	
More resources for health authorities			✓	
Promotion, prevention and early support services (especially for children/youth)			✓	
# cases/10,000 campylobacteriosis, cryptosporidiosis & giardiasis				✓
Aboriginal early childhood development services			✓	
Vehicle accidents – deaths and injuries			✓	
Teen drug and alcohol use			✓	
Self-reported health		✓		
Physical activity		✓		
Obesity		✓		

1 Immunization for influenza only.
2 Smoking in youth 18 years and under
3 Life expectancy is an indicator and is not operationalized as # years. Rather, the life expectancy is measured by smoking rates, immunization rates, drug and alcohol use, etc.
4 Admission rates for influenza and pneumonia only
5 General PYLL estimate (i.e., not cause-specific)
6 Age category, 50-79 years
7 Age category, 50-74 years

APPENDIX D

THE FRASER VALLEY HEALTH CENTRE and THE EASTERN FRASER VALLEY CANCER CENTRE BUSINESS CASE

February 8, 2001

EXECUTIVE SUMMARY

Introduction

The Fraser Valley Health Region and the BC Cancer Agency submitted a proposal to the Ministry of Health in June 2000 to construct two new health care facilities on lands owned by the Regional Hospital District on Marshall Road in Abbotsford, BC. The Fraser Valley Health Centre is a 300-bed acute-care hospital, intended as a replacement for the Matsqui-Sumas-Abbotsford Hospital located in Abbotsford. The Eastern Fraser Valley Cancer Centre is a new facility. Both facilities will provide services to the local health area as well as specialized programming to the residents of the entire Fraser Valley Health Region.

In late June 2000, the FVHR and BCCA received approval and planning funds from the Ministry of Health to proceed with planning for these facilities. This document summarizes the outcome of this planning process and represents the business case to support the project. It addresses the requirements for Capital Project Funding specified by the Ministry of Health and the Ministry of Finance and Corporate Relations.

History of This Project

The Fraser Valley Health Region and the Ministry of Health have been seeking solutions to the health care services shortfall in the Region since 1986. Seven options were developed for renovating the existing MSA Hospital between 1987 and mid-1989. A study completed for the Ministry of Health in April 1990 recommended a new facility on a new site. In July 1990, the Ministry of Health announced approval of a new 300-bed facility on a new site. The Central Fraser Valley Regional Hospital District purchased property for the new hospital on Marshall Road in Abbotsford in March 1991. Planning proceeded through tendering specifications and cost estimates. The project was put on hold in October 1997.

In May 2000, the Ministry of Health requested a review of the MSA Hospital project. The Ministry asked the FVHR to consider the implications of health care regionalization on the previous proposal and to consider how a regional cancer centre might be integrated into the plans for the designated site.

A comprehensive project proposal was submitted to the Ministry of Health in June 2000. The proposal defined the demand for services within the Region and the impact of co-location of cancer services. The proposal also provided a comparison costing of several designs and development options and recommended development on the new site with BCCA. After reviewing this proposal, the Ministry of Health approved funding to complete a business case in support of the proposal.

Development of This Business Case

Under the guidance of a Steering Committee, a Project Team was established to develop the Business Case. Activities undertaken as part of this development process included:

- complete detailed functional programming;
- review relationship of proposed acute care programs with existing and planned regional programs;
- complete an external assessment of proposed programs;
- review and update project costing (from May 2000 proposal submitted to Ministry of Health);
- explore public partnership opportunities;
- review parking capacity.

Summary of Request

The current estimated cost of the project, based on the Facility Program dated January 31, 2001 is as follows:

Item	Estimated Cost	$
A.	Land	0
B.	Construction	128,178,200
C.	Professional Fees	15,548,400
D.	Furnishings & Equipment	53,198,000
E.	Municipal & Connection Fees	1,589,600
F.	Management & Overhead	7,990,600
G.	Project Contingency (2%)	1,566,500
H.	Payable Goods & Services Tax	2,476,100
I.	**Total Project Cost**	**$210,547,400**

A summary of the capital and operating costs for each facility is shown in the following table.

Fraser Valley Health Centre	$178,213,700	$83,305,100
Eastern Fraser Valley Cancer Centre	$ 32,333,700	$10,551,334

Highlights of Demand

Residents of the Fraser Valley need improved access to health services locally as well as expansion of health care services available in the Region. Although the population of Abbotsford has increased 2.4 times since 1980, the number of acute care beds has remained constant and cancer care has not increased at all. Increased pressure on services provided in Vancouver mean that regional health authorities need to care for

more patients within their home region. Currently, averages of only 75% of cases are cared for within the FVHR and this falls well short of the desired goal of 85%. The current Matsqui-Sumas-Abbotsford Hospital is not suitable for expansion and cannot meet the secondary or tertiary acute care service or cancer needs of the growing regional population. Current and projected demographics for the Lower Mainland show that cancer care available in the Region is not adequate to meet the needs of this growing population.

Acute Care Services

The need for a new facility that provides a broader scope of regional services is directly linked to the vision, mission and strategic directions of the Fraser Valley Health Region. The Region is significantly hindered in its ability to achieve its goals and objectives because of the current physical plant at the MSA Hospital site.
Completion of a new acute care facility in 2005 will allow the FVHR to provide the necessary access to quality patient care to the residents of the five local health areas as well as to patients in adjoining regions who wish to seek care closer to their home. The hospital is the critical link to continuing service delivery in this community.

- The need for a new acute care hospital in Abbotsford is driven by a number of factors:
- the demand for additional inpatient beds to meet the current and future needs of the region;
- the need for additional outpatient capacity for programs provided to the local community;
- the physical plant does not allow the hospital to provide adequate infection control procedures;
- the need to provide new and expanded services within the Region in order to care for drastically more
- patients rather than trying to access services through the resources available in other regions, specifically in Vancouver;
- lack of sufficient numbers of inpatient beds results in delays or inability to provide appropriate access to services, such as:
  - increased surgical wait times due to restricted access for surgical cases requiring an inpatient stay;
  - prolonged stays in the emergency room (ER) and delay in care due to back ups in the ER;
  - lack of sufficient regional inpatient psychiatric beds results in, on average, two admitted psychiatric patients per day being held in ER at MSA Hospital and one in Mission Memorial Hospital;
  - frequent shuffling of patients from room to room is necessary - the current average is 80 transfers a day at MSA Hospital.

Cancer Care

Cancer projections for the Fraser Valley show an annual increase of approximately 3.5% in the numbers of new cancer cases in the community. These projections are based on a regression line developed from 10 years of cancer registry data. It is expected that there will be over 13,000 new cases of cancer reported annually in the FVHR by 2012. The number of people living with cancer (prevalent cases) and requiring continued care from

the cancer system is also increasing. There is an expected annual increase by 7% of the overall cancer prevalence rates.

A shift in case-mix and its associated changes in fractionation for radiation therapy patients will also contribute to increasing workloads. Consultations become more extensive and take more time as patients live longer with cancer and the range of services they need to access broadens. Further, it can be expected that as the Provincial Surgical Oncology Program is developed, more patients will be accessing cancer centres for a multidisciplinary oncology consultation prior to their surgery.

The two existing cancer centres in the Lower Mainland, Vancouver Cancer Centre and Fraser Valley Cancer Centre, were designed to accommodate 5,000 and 2,500 new patients respectively. Based on new patient registrations alone, both centres are currently working in excess of their design capacity by about 700 new patients in 1999-2000. However, these measures are now considered inadequate because of the number of prevalent cases and the many disease sites for which multiple treatment modalities are required.

Radiation therapy remains a major form of treatment for cancer and access to care is completely dependent on the capacity of BCCA facilities. In the Lower Mainland there are currently eleven radiation therapy machines. A twelfth machine will be in service at the Fraser Valley Cancer Centre (Surrey, BC) in January 2001. However, the growth in demand for treatment services means that by 2004 the Lower Mainland will already have a shortfall of two treatment machines.

Together these factors drive the need for three more treatment machines to be in service by 2004. The demand for radiation therapy alone makes a compelling case for a new centre in Abbotsford.

Medical oncology and chemotherapy workload is growing at a greater rate than any other components of service. Chemotherapy services are provided both within cancer centres and in the community. Projections identify the degree to which future workload might be accommodated in a new cancer centre with a capacity similar to the current Fraser Valley Cancer Centre and the workload that at a minimum will need to be accommodated in the community. The data clearly shows the need for additional comprehensive cancer care facilities in the Fraser Valley. In global terms this means the duplication of the (Surrey) Fraser Valley Cancer Centre, hence, the request for the Eastern Fraser Valley Health Centre services.

As outlined above, there is a need to expand cancer services into the Eastern Fraser Valley. The Cancer Centre requires a host hospital to co-locate in order to provide comprehensive services to patients.

Relationship between Cancer Centre and the Fraser Valley Health Centre

The BC Cancer Agency currently provides comprehensive cancer care services through four regional cancer treatment facilities and through the Communities Oncology Program that is run in partnership with hospitals in the community. The Vancouver Cancer Centre is the only treatment facility that is self sufficient in terms of clinical and operating support services. The cancer centres in Victoria, Kelowna and Surrey have been designed to allow the cancer centre facilities and staffing to be focused on the oncology speciality services while all the support and general clinical functions are provided through a purchased services arrangement with the "host hospital". This model of a "free

standing" cancer centre closely linked to a major hospital has proved to be very effective both in this province and many other centres across Canada.

Scope of Services Fraser Valley Health Centre

The programs and services to be offered in the FVHC were developed through a formal functional programming exercise. The programs and services will serve the needs of the local Abbotsford community as well as house some of the regional programs. The other hospitals in the region will play similar roles by providing standard services to the community and offering some consolidated regional programs. The Regional Clinical Program Plan provides the detail of the organization of services.

The FVHC will support the following programs:

- general surgery and all subspecialty inpatient surgical services including orthopedics, gynecology, ENT, vascular, plastics;
- general surgery and all subspecialty outpatient surgical services including general surgery,
- orthopedics, gynecology;
- all specialty adult medical services including nephrology (hemodialysis unit), cardiology (no
- interventional cardiology planned), neurology, gastroenterology, respirology;
- level II obstetrics with a level II nursery;
- emergency medical services;
- psychiatric services;
- pediatric services (inpatient and outpatient);
- family practice services including geriatric medicine, palliative care, emergency medicine, level I obstetrics, GP pediatrics.

The following table illustrates the inpatient services and programs, proposed bed numbers, assumed occupancies for 2005 for the proposed FVHC site.

Fraser Valley Health Centre
Bed Summary

	2005			2015		
General Medical/Surgical (including includes rehab)	132	85	40,953	142	90	46,647
Telemetry	14	85	4,344	16	90	5,256
Surgical Step Down	8	85	2,482	8	85	2,482
Palliative	7	85	2,172	10	90	3,285
Oncology	5	85	1,551	10	90	3,285
ICU/CCU	13	85	4,033	18	85	5,585
Pediatrics	18	60	3,942	18	70	4,599
Obstetrics (including births)	24	61	5,314	28	4	6,541
NICU	7	85	2,172	10	85	3,103
Psychiatry	33	90	10,841	40	90	13,140
TOTAL	261		77,804	300		93,922

Further information about percent occupancy, patient days, and cases is included in the Project Definition Report. The building space summary estimates that 45,693 building gross square metres will be required to support the functional program.

Eastern Fraser Valley Cancer Centre

The Cancer Centre in the Eastern Fraser Valley will provide:

- new patient multidisciplinary consultation and care planning;
- chemotherapy and systemic care;
- access to national and international clinical trials;
- radiation therapy;
- supportive care and pain and symptom management;
- nutritional consultation and support;
- patient and community education in cancer prevention, screening;
- professional education/liaison for community based cancer support and treatment programs.

The estimated workload volumes are shown in the following table.

Eastern Fraser Valley Cancer Centre
Workload Volumes

Lower Mainland	2000	2005	2015
Cancer Frequency (New Cases)			
Area 1	5,008	5,545	7,002
Area 2	4,489	5,303	7,358
Northern Region	802	963	1,340
Total	10,299	11,811	15,700
Radiation Therapy			
Total Cancer Cases	10,299	11,811	15,700
Total Fractions	103,216	129,685	197,820
Accelerators Required (10 hour days)	12	14.4	22
Accelerators Available	11	15	22
_ Vancouver	7	7	8
_ Surrey	4	5	5
_ Abbotsford	0	3	4
_ Other (to be determined) 0	0	5	
Eastern Fraser Valley	**2000**	**2005**	**2015**
New Patient Registrations	0	1,300	2,700
Total Patient Appointments	0	30,000	70,000
Total Chemotherapy Visits	0	3488	7,216
Radiation Therapy Fractions	0	27,000	36,000

Alternatives Considered

There have been many alternatives considered throughout the history of the project, such as:

- expansion versus new construction on the existing site;
- existing site versus new site for construction versus alternative site;

- degrees of reuse of existing design work versus complete new design and development of single
- building versus multi-building campus (allowing non post disaster spaces to be provided at a more economical level);
- integration of Cancer Centre into the hospital yet providing a distinct environment for cancer patients and their families;
- provision of specific services in a hospital facility, on a hospital site or in the community and analysis of which community this should be in;
- integration of inpatient and outpatient functions versus grouping of ambulatory functions; and
- procurement alternatives for the construction process.

With the facility program now complete, the Project Team has spent some time considering the impact of these requirements on the ultimate design of the overall facility. While some elements of the existing (1997) design may be salvageable, information contained in the best practice review point to alternative building forms as warranting some additional consideration. Major site planning and stacking concepts outlined in the Project Definition report (physical plan review September 14, 2000) have been upheld in a subsequent concept planning session held January 26, 2001. Using this planning model, space for the overall facility can be segmented into at least two separate occupancy groups. While higher unit rates are used for the greater portion of the hospital structure, lower unit rates have been applied against occupancies not requiring this (post-disaster) classification. Gross-up rates for the facility have been established to permit a measure of flexibility as the project proceeds into the next (conceptual and schematic) design phases of development.

The project proposal prepared in June 2000 explains how alternatives have been considered. The need for additional health services is in Abbotsford. Examination of health services being offered in other facilities in the Region have been conducted on one level by Val Gillies. Program value analysis has been conducted on another level by KPMG. Shell space was constructed earlier in Chilliwack and this is one reason that the number of beds needed for FVHR have been reduced. The cancer centre could not be co-located with a hospital on another site.

Project Management and Governance

A project management and governance structure was set up to manage all issues related to scope, schedule and budget. This section of the Business Case describes:

- the Terms of Reference for the Steering Committee;
- the project management structure (roles, reporting relationships, etc.);
- the project schedule;
- the independent monitoring and evaluation process for the project;
- the project approval process;
- relevant legal, technical and policy issues;
- financing sources; and
- a communications strategy.

Costs and Benefits of the Project

The hospital PCOE has been estimated based on information contained in the Facility program, which was issued in 'final draft' form at the end of January 2001.

The PCOE is set up to identify the workload volumes, FTE, salary and benefits, supply and total costs projected for an anticipated opening in 2005. The workload volumes, FTE and total costs are provided for the planned operation of the 2000/01 fiscal year. The total proposed change is provided for each of these categories. The document is sectioned by major clinical, diagnostic and support categories with totals provided for each section. The revenue section identifies the expected revenue changes related to the projected volumes for 2005.

The costs were developed wherever possible by determining the worked hour to volumes. The worked hour to volume relationship was reviewed against the original submission, current operations, other hospital data, and available staffing guidelines. The Ministry of Health provided the initial cost for the renal program. The renal costs have been escalated for the 2000/01 contract cost changes. Overall salaries have been costed at the 2000/01 rates inclusive of contract changes. Benefits were costed at 19.5 percent of salaries. Supplies were costed using the 2000/01 budgeted rate per volume of activity for the individual areas.

The major volume or size changes included in the PCOE are summarized in the following table:

Summary of Volume Changes	2000/01 Budget	05 Projected	Percent Increase
Beds	204	261	27.9
Patient Days	59,464	77,804	30.8
OR Visits	7,100	11,850	66.9
Emergency Visits	42,000	50,369	19.9
Ambulatory Care Clinic Visits	11,838	22,430	89.5
Laboratory Units	2,768,179	4,375,163	58.0
Medical Imaging Units	2,323,630	3,042,208	30.9
Building Square Meters	18,000	45,693	254.0

The Pre Construction Operating Estimate is summarized as follows:

The total Net Pre Construction Operating Estimate is..... $83,305,100
The 2000/01 Operating Budget (before approval of expected 'rollover' requirement) is..... $46,400,907
PCOE change..... $36,904,193

Non-Financial Outcomes

In addition to financial measurement of costs and benefits, there are non-financial aspects to be taken into account for this project. Although listed as non-financial, many of these items do in fact have an impact on the bottom line. This includes:

- a new facility and equipment will attract care providers to the region. This is a critical part of the delivery of services to residents;
- capacity to do higher volume of cases in the facility. This will reduce wait times for services to the residents. There will be the ability to handle the projected volumes in the program;
- new and expanded programming will facilitate repatriation of patients currently being cared for in other regions;
- ability to integrate new technologies and to continue the inclusion of less invasive techniques into patient care. This will result in reduced hospital stays for inpatient care and increase day care procedures;
- reductions in closed beds due to isolation requirements. Currently with a very limited capacity to isolate in the current facility, isolation requirements result in closure of other beds within the room;
- the project will create work in the community. It is estimated that the construction will produce on average about 10 people per million dollars of construction;
- the new environment created in the new centre will improve the working environment and increase the productivity of staff. The facility will allow operational functioning as expected in the plan;
- it is expected that there will be a reduction in the requirement of transferring up to 80 patients a day and hence, the potential for injuries to staff will be reduced and staff will be better deployed to provide patient care;
- there will be fewer labour issues as a nurse will be less involved in transferring patients and furniture, which is considered a non-nursing duty;
- the increase in the number of single rooms will increase the healing capacity for patients;
- the BCCA statistics indicate that BC has the best statistics for cancer control in Canada. With the new equipment and the ability to address wait times more effectively, the BCCA performance will be benchmarked with other countries for comparison;
- the facility will be built on budget to the functional planning assumptions.

Performance Measures

The Fraser Valley Health Region and BCCA will establish baseline performance indicator information and identify the data collection process.

Fraser Valley Health Centre

There are several areas in particular that will be closely monitored for their outcomes in this project, as follows:

- the ability to reach the repatriation of residents targets of 90% or higher capture of non-surgical cases and 85% of surgical service demand by 2010, increasing to 90% or higher in most services by 2015;

- the ability to reduce ALC patients to 7% by 2005, down from a current level of approximately 12% at the MSA Hospital site. Future targets are 5% by 2010 and 3% by 2015;
- the ability to consolidate selected elective services for the region at Mission Memorial Hospital and Chilliwack General Hospital;
- the ability to attract and retain staff to provide the specialized services required for the future;
- the effectiveness of the strategies to manage the needs of seniors and the strategies to programming ambulatory care;
- the effectiveness of the psychiatry/mental health program design to ensure a fully integrated community – hospital program. The success of off-site locations and ability to successfully pursue "P3" construction opportunities on the FVHC site for some portion of the psychiatry/mental health ambulatory/outpatient programs.

Eastern Fraser Valley Cancer Centre

The following list of preliminary indicators has been developed to measure the quality of service provided at the new Cancer Centre.

Screening	
Effectiveness	% of the population (EFVCC catchment area) at risk, that is screened
Efficiency	turn around time for lab results
Accessibility	wait time for genetic counselling
Treatment	
Radiation Therapy	
Appropriateness	% compliance to treatment protocols
Efficiency	% utilization of available treatment time
Accessibility	wait time – diagnosis to consultation with Radiation Oncologist • % compliance to less than 2 week wait time standard wait time – 'ready to treat' to first treatment appointment • % compliance to less than 2 week wait time standard
Systemic Therapy	
Appropriateness	% compliance to treatment protocols
Efficiency	% utilization of available treatment time
Accessibility	wait time – diagnosis to consultation with medical oncologist • % compliance to less than 2 week wait time standard wait time – 'ready to treat' to first chemo/drug therapy appointment
Rehabilitation	
Effectiveness	% of patients with persisting disability following treatment
Palliation	
Effectiveness	% of patients dying in preferred surroundings % of patients dying pain free

Cancer Centre	
Appropriateness	% compliance to treatment protocols
Efficiency	# of fully admitted cases # ambulatory visits
	ambulatory visits per worked hour
	% rebooking of appointments
	% utilization of ACU space
Accessibility	average distance travelled by patients
Acceptability	patient/client satisfaction rates
Research	
Effectiveness	% of eligible patients enrolled in a clinical trial
Accessibility	% of eligible patients offered enrolment in a clinical trial
Education	
Competence	# of student learning opportunities
	# of students

Risk Management

The responsibility for managing risks rests with the Steering Committee. The Risk Management strategy is based on Ministry of Finance guidelines. For each risk factor, the probability and impact on the project was assessed to classify the degree of risk associated with the project, e.g. low, medium or high risk. A Risk Classification Framework is shown in the following table. The Project Team used this Framework to assess the degree of risk related to this project.

Risk Classification Framework

Area				
General Risk	High visibility	3	2	6
	Public concerns/objections	0	0	0
	Environmental factors	1	1	1
	Safety issues	1	1	1
	Size of project	1.5	1.5	2.25
	Legislative changes	2	2	4
Management Risk	Complexity	1.5	1.5	2.25
	Unclear or changing scope	3	1.5	3.5
	New technology	3	3	9
	Project newness	1	1	1
	Project manager experience.	5	3	1.5
	Design team experience	.5	3	1.5
	Contractor experience	.3	5	1.5
	Losing momentum through procedures	2	3	6
	Safety issues	1	3	3
	Aggressive/changing time schedule	2	2	4
	Labour productivity drop	1	3	3

Construction Risk	Availability of skilled trades	2	3	6
	Availability of bondable contractors	2	3	6
	Labour disruptions	3	3	9
	Material/equipment availability	1	3	3
Economic Risk	Weather-related problems	.5	1	.5
	Project funding uncertainty	3	3	9
	Labour cost Increases	3	3	9
	Material/equipment cost increases	3	3	9
	Currency fluctuation	3	3	9
	Project Total	44.8/78	61.5/78	111 of a potential of 234 points

Risk Management Strategies

A major part of managing the risk on this project will be undertaken through the Project Management Office. Risk management strategies for specific stages of the project include:

- environmental risk management includes conducting a traffic study, green building, and storm water treatment and other studies as appropriate;
- evaluation, review and approval processes during the engineering and design stages of the project. An evaluation to ensure that the design is reflective of the project objectives and scope and a review that is concerned with regulations, licensing, safety and other standards. In addition, the detailed design phase should include cost management and value analysis techniques;
- procurement risk management strategies including processes and alternatives for contracting design and construction; procurement of property, materials, equipment and land; and assessment of the cost versus quality of the proposals received;
- construction management risk strategies including the need for contract financial management, supervision and inspection, establishing protocols for changes required and the formulation and implementation of recovery plans;
- the post-construction phase should include a formal process that should be set-up to assess the project's completion, conduct appropriate tests to ensure proper functioning and test compliance to ensure all specifications, regulations and contractual agreements have been adhered to. Protocol for unsatisfactory delivery should be established to resolve any disagreements, discrepancies and issues in the most efficient and effective manner to facilitate timely project closure and delivery;
- follow-up includes determining the projects success with regards to the asset built and the costs associated with its construction; all elements of the project's life cycle should be evaluated in order to determine both positive and negative outcomes.

Implementation Plan

A detailed implementation plan was developed which shows the activities and sequencing of the project.

The target opening date for the facilities is 2005.

Conclusion

This business case presents compelling rationale to build a new health care centre on a new site in Abbotsford. The combined facility will better accommodate the health care needs of the Fraser Valley Health Region and reduce cancer treatment wait lists for Lower Mainland residents.

The strengths of the project are summarized as follows:

- for the first time in BC, a Cancer Centre is being designed at the same time as a major acute care facility which will result in operational efficiencies and reduce or eliminate many of the problems that occur with add-on facilities;
- the new combined facilities will offer new and expanded health care services in concert with other hospitals in the region;
- the project supports repatriation of patients so that care can be provided 'closer to home';
- the project will provide advanced technologies and information systems in the facility;
- retaining design elements from the previous project design may produce cost and scheduling efficiencies;
- the project procurement methodology that has been proposed will result in open-market competition, and provide opportunities for shorter completion time;
- employing value analysis and a range of other risk management strategies in all phases of the project design mitigates government exposure to risk throughout the duration of the project;
- the Project Team is examining all opportunities to develop a modern facility that meets the present and future regional health needs, including a review of world-wide best practises.

APPENDIX E

INFORMATION RESOURCE MANAGEMENT PLAN 2001/02

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INFORMATION RESOURCE MANAGEMENT PLAN

Part I – Executive Summary

In support of the Strategic Directions for British Columbia's health services system and the Strategic Plan for Health Information Management[3], this Information Resource Management Plan (IRMP) is an annual update for fiscal 2001/02 that outlines how the Ministry of Health (the Ministry):

- fosters the use of IM/IT by health system participants to help meet its goals for the BC health system
- uses IM/IT to enable the Ministry's contribution to meeting those goals
- supports the BC government direction by participating in cross-government initiatives (InfoSmart) and sharing common infrastructure

This document follows the format based on the GMOP 8.2.1 policy and guidelines, and contains the following sections: Introduction to the Ministry, Current IM/IT Environment, Target IM/IT Environment and Strategies, and Budget and Statistics.

Introduction to the Ministry

The British Columbia government's overall vision for health is to ensure a healthy population living in a healthy environment.

The design and delivery of health services through to 2002 will be guided by 9 broad goals, as articulated in the document entitled Strategic Directions for British Columbia's Health Services System.

The main business drivers include a regionalized governance, a shift towards community based care, the need for improved accountability, quality, efficiency, equity, access, information sharing and privacy, the need for contingency measures to deal with the unexpected demands, as well the increasing desire of the citizens to be more directly involved in making decisions about their health care. There is also increased recognition of the importance to collaborate at the federal level, and to take leadership and participate in cross-jurisdictional efforts to build a foundation for the future.

Current IM/IT Environment

Technology/Information/Application Architecture

The current technology architecture is largely dictated by the need to support several large legacy systems as well as an increasing number of newer systems on the Unix/Oracle platform. The information architecture is characterized by an evolving corporate data model that is consistent with national and provincial standards, and an extensive decision support environment. The application architecture can be categorized into online transaction processing, data collection and analysis, decision support and electronic service deliveries.

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[3] The plan has yet to be finalized.

Successes

Since the last update of the IRMP, the Ministry has made significant progress towards its goals. Some of the highlights are:

- Y2K remediation
- PharmaNet access from hospital emergency departments
- Progress made on the Physician Office Access to PharmaNet Pilot
- Surgical Wait List Registry
- HealthNet Interface – a web-based Electronic Service Delivery (ESD) infrastructure enabling employers and health care facilities access to MSP enrolment information and beneficiary demographics
- New applications supporting Health Authorities
- Physicians Support Framework negotiations
- Three initiatives (PHN, Lab Test Standard and E-claims Standard) by the BC Health Information Standards Council
- Collaborative mechanisms at national and cross-provincial levels

Compliance

Common Directions Facilitating Future Flexibility:

- The Ministry is fully committed to complying with all current government-wide standards
- CSA (IBM) – The Ministry has the highest level of commitment in the Government
- Network – The Ministry transferred staff responsible for health authority network planning to Information Technology Services Division (ITSD)
- Modifications to HNData's original contracting approach to incorporate Oracle and facilities management capabilities requested by ITSD
- The Ministry is using ITSD as services provider for correspondence tracking (Cliff and CRMS) rather than establishing its own server-based capability
- The Ministry suspended the evaluation of help desk/desktop provisioning outsourcing options based on its commitment to InfoSmart 2000
- The Ministry uses Remedy for the Pharmacare Help Desk, and has a plan to move to Remedy for Desk Top support software.
- The Ministry suspended custom development work on the current email solution to position its move to ITSD service offering advocated by InfoSmart 2000

InfoSmart 2000:

- The Ministry is fully and publicly committed to InfoSmart 2000
- 17 of 36 capital projects being recommended by Treasury Board staff for funding support InfoSmart 2000 Strategic Priorities
- Many of the projects support more than one of the InfoSmart 2000 strategic priorities:
  - 10 of the 17 support Information Sharing
  - 10 of the 17 support a Common IT Infrastructure, and
  - 5 of the 17 support Electronic Service Delivery

Target IM/IT Environment and Strategies

The vision for information management and information technology is to have the right information in the right hands at the right time to support health care delivery and system sustainability.

Objectives

- Align with F/P/T directions and collaborate with other provinces/territories in infrastructure building
- Provide leadership in the BC health system in achieving the information management vision shared by all health partners
- Lead the development and promulgation of system-wide standards to facilitate information sharing, interoperability and influence on the vendor community
- Provide information management and services to Ministry programs and support to Health Authorities
- Address legacy systems re-engineering
- Support planning, policy development and research by providing appropriate access to health services information to the Ministry, Health Authorities and other health partners
- Continue to exert rigorous project management disciplines

Strategies

Health Information for the Public:

- Provincial roll out of the BC HealthGuide (Tele-care) utilizing a combination of a Handbook, a Call Centre and a Web Site
- Continue to build on existing web presence by offering improved access to information supporting public involvement, understanding, and participation in shaping health policies (e.g. surgical waitlist, tobacco information and immunization recording)

Electronic Health Record (EHR) and Telehealth

- Continue to invest in and support standardization initiatives at the regional, provincial and national levels to define what an EHR is and enable the inter-operability to make it happen
- Make information technology more accessible by physicians and other providers
- Enable physicians and other providers to contribute to and gain from the electronic health record
- Support regional health authorities in extending facility based clinical systems to the outlying provider community
- Deploy a common, secure data transport and usage authentication infrastructure to provide the shared benefits of wider access to the electronic health record and other information holdings
- Telehealth
  - Improve health services in rural areas by supporting the development and expansion of Telehealth so that it becomes an accepted part of the health care system that will benefit both patients and providers
  - Facilitate continuing education for BC health care practitioners in rural communities (CME/CHE)

System Management:

- Align with F/P/T initiatives to collaboratively identify and develop best practices, standards, common infrastructure, and common opportunities
- Actively participate in F/P/T processes such that they recognize BC's strategic thrusts and collaborative contributions and lead to appropriate levels of new funding for specific priorities and initiatives
- Seek the establishment of a central fund to assist collaborative and health system-wide initiatives
- Improve smaller Health Authority capacity through improved collaboration and partnerships
- Establish a collaborative process that aligns with health system strategic direction setting and operational resource allocation
- Collaboratively develop system-wide repositories, directories, and inventories for use by appropriate stakeholders
- Exploit WEB technologies
- Promote improved telecommunications bandwidth to remote areas
- Develop and implement a system-wide architectural framework and ongoing architectural alignment process
- Stakeholders commit to implement BC Health Information Standards.
- Rationalize and leverage existing information holdings
- Implementation of the Health Data Warehouse (HNData)
- Stabilize the IMG work force

Budget and Statistics

Capital costs (M):		
• 1999/00 Expenditures	$5.0	(capital projects deferred due to Y2K)
• Budget in 2000/01	$13.857	(includes deferred projects and funding for PC capital leases formerly in operating)
Operating costs (M):		
• 1999/00 Expenditures	$56.1	
• Budget in 2000/01	$62.2	
• Shortfall in 2000/01	$6.1	

APPENDIX F

HUMAN RESOURCES MANAGEMENT STRATEGIC PLAN

A human resources plan is created to ensure that future human resources meet the operational needs of the Ministry. This plan is comprised of a number of initiatives to address potential issues affecting the Ministry's human resources. A brief description of these seven initiatives follows. A more complete description of the initiatives can be found in the relevant portions of the Human Resources Division business plan for 2001 – 2003.

1. Succession Planning

- Identify future Ministry's program needs
- Identify senior key management positions
- Identify whether staff in key positions are projected to retire or are in the pool of candidates
- Identify the potential pool of candidates for projected new or vacant positions
- Identify staff gaps and prepare a plan to address
- Identify and satisfy developmental needs of candidate pool
- Create a career development process to enable staff to self-direct their careers

2. Organizational Wellness

- Profile and dedicate resources assigned to ergonomic assessment
- Raise employee awareness of violence in the workplace, conduct related risk assessments and identify actions to address problem areas
- Continue with First Responders training
- Continue to support and promote workplace language program for staff
- Continue to support and promote smoking cessation program as required

3. Diversity – Employment Equity

- Develop an Employment Equity Action Plan for 2001/2002 to comply wth the new corporate standards
- Work to meet the target group goals set for hiring
- Participate in job fairs for designated group members

4. Youth Employment

- Continue to implement initiatives identified in the Ministry's Youth Recruitment Strategy
- Promote youth employment initiatives and availability of PSERC funding
- Participate at career fairs for youth and schools and education institution career days

5. Performance Management

- Link the Ministry Business Plan for 2001-2002 to individual performance plans for Ministry Executive and Directors
- Prepare performance plans for Ministry Executive and Directors, including operational and personal development needs

6. Attendance Management

- Review Ministry sick leave statistics by Program and Division and distribute to Executive
- Implement the Managing Health Related Absences program, including supervisory training, and report on success

7. Employee and Organization Development

- Provide a planned, long-range systems approach for understanding, changing and developing healthy, effective organizations through customized internal consulting services.
- Provide leadership, management/supervisory and employee development through core competency self-evaluation tools, training (program streams addressing core competencies), change management, team building, coaching, skills assessment, and self-directed career development tools.

Key Program Objective: Develop improved programs for the management of health-related absences and other leaves

Planned Tasks/Activities & Deliverables	Performance Measure	Start Date	Target Date
Evaluate the effectiveness of existing Ministry attendance procedures and processes	Evaluation method implemented	Ongoing	Ongoing
Develop and implement communication plan for management of absences to all Ministry staff	Staff advised about program	April 1, 2001	Ongoing
Delivery of training programs for Ministry supervisors	All ministry supervisors trained	April 1, 2001	December 31, 2001

Key Program Objective: Identify and plan for future retirements

Planned Tasks/Activities & Deliverables	Performance Measure	Start Date	Target Date
Develop plans to address vulnerable areas, including developing youth recruitment and employee recruitment and retention programs	Implement youth recruitment strategy	April 1, 2001	March 31, 2003
	Increase representation of youth within the Ministry by 25 percent	April 1, 2001	March 31, 2003
	Alternative work arrangements in place to support employees wishing to delay retirement	As requested	March 31, 2003
	Identify and consider creating developmental opportunity positions (e.g. OA1, RO1, management)	April 1, 2001	March 31, 2002
	Key positions and candidate pool identified for these positions	April 1, 2001	March 31, 2002
Expand employee understanding of pension and retirement benefit plan	Employee information sessions	April 1, 2001	Ongoing
	Expanded web page	April 1, 2001	September 30, 2001

Key Program Objective: Create a career development process to meet the personal, professional, and corporate needs of the Ministry of Health

Planned Tasks/Activities & Deliverables	Performance Measure	Start Date	Target Date
Create an ongoing process to ensure that all employee development initiatives are aligned with broader corporate goals and future requirements	Integrate and articulate Ministry corporate objectives in all Branch offerings/ communications	Ongoing	Ongoing
Implement a career development ("CareerWise/Typefocus") process to enable staff to self-direct their careers within the Ministry of Health	Career planning education sessions delivered	April 1, 2001	Ongoing
Develop a core competency model and framework for the areas of leadership and management	Core competencies developed for:		
	Leadership	April 2001	November 2001
	Communication	August 2001	February 2002
	Managing performance	December 2001	June 2002
	Change and transition management	March 2002	September 2002
	Continuous improvement	July 2002	December 2002
	Positive work environment	October 2002	March 2003

Key Program Objective: To support and sustain an environment that encourages equity and diversity and creates a workplace that is reflective of the external workforce

Planned Tasks/Activities & Deliverables	Performance Measure	Start Date	Target Date
Develop a revised employment equity (EE) Action Plan for each year	Accepted plan established	April 1, 2001, 2002, 2003	Ongoing
Submit EE Action Plan Progress Report through Ministry Executive to PSERC	Progress Report submitted	March 1, 2001, 2002, 2003	May 31, 2001, 2002, 2003
Continue to expand outreach recruitment to designated groups in communities served by MoH	Representation at outreach events (e.g. career fairs)	Ongoing	March 31, 2003
Identify appropriate training/education initiatives to support the principles of EE in the workplace	Trained staff	Ongoing	March 31, 2003
	Modified Women's Issues Training Fund	April 1, 2001	March 31, 2002
Develop ongoing links with employee associations for designed groups and the HR community to enhance day to day EE operations	Improved working relationship	Ongoing	March 31, 2003